



PATENT SPECIFICATION

626,372

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PROVISIONAL SPECIFICATION.

Improvements in or relating to devices for facilitating the Sharpening of Chisels, Plane Blades and the like.

I, DUDLEY AUSTIC LAYTON, Tudor House, Poplar Avenue, Eaton, Norwich, Norfolk. British Nationality, do hereby declare the nature of this invention to be as follows:—

5 Having regard to the difficulty of holding a chisel or plane blade and the like in the hands and moving back and forth on an oil or other sharpening stone, keeping them whilst so doing at the same and correct
10 angle at every stroke, my invention seeks to overcome this problem by using a metal holder in which chisels and the like can be clamped, at the required angle, and moved back and forth on the stone whilst so fixed.
15 At one end of the appliance are fitted

two clamp screws on a platform that can be adjusted vertically for its angle in relation to the main body of the appliance, by means of a milled screw working a short threaded rod to which the clamp screw
20 platform is fixed at its rear end. At the other end of the appliance is a small movable circular roller of wood or composite material on which the appliance can be moved back and forth on the bench etc.,
25 when in use.

Dated the 24th day of January, 1947.

D. A. LAYTON.

COMPLETE SPECIFICATION.

Improvements in or relating to devices for facilitating the Sharpening of Chisels, Plane Blades and the like.

I, DUDLEY AUSTIC LAYTON, a British subject, of Tudor House, Poplar Avenue, Eaton, Norwich, Norfolk, do hereby declare the nature of this invention and in what
30 manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements
35 in devices for facilitating the sharpening of chisels, plane blades and the like on an abrasive sharpening surface, such as the surface of an oil stone, and in particular is concerned with improvements in such
40 devices of the type comprising a frame or supporting member in or on which the tool or blade to be sharpened can be clamped, and a roller or other anti-friction bearing means mounted on said frame and arranged
45 to run on a fixed or control surface during the sharpening process whereby the tool or blade is maintained at a constant predetermined angle with respect to the sharpening surface whilst it is moved there-
50 along.

A main object of the present invention is to provide a generally improved device of

the type specified.

According to the present invention the device comprises an elongated frame, a
55 cradle mounted for angular adjustment adjacent one end of said frame and adapted to receive and hold the tool or blade to be sharpened and an anti-friction bearing mounted adjacent the opposite end of said
60 frame for contact with a fixed or control surface during the sharpening process, the arrangement being such that the cradle can be adjusted to an angular position in which the tool or blade therein is held at
65 the required angle to the sharpening surface, when the cutting edge of said tool or blade is in contact with the said sharpening surface and the anti-friction bearing is also
70 in contact with said sharpening surface or with an adjacent parallel control surface, and the frame can then be moved to and fro across the sharpening surface to sharpen
75 the tool or blade which latter is maintained at the required sharpening angle.

In order that the invention may be clearly understood and readily carried into effect one embodiment thereof will now

be described in detail with reference to the accompanying drawing wherein:—

Figure 1 is a plan view of the device.

Figure 2 is a section on the line II—II of Figure 1, and

Figure 3 is an end elevation according to Figure 1.

Referring now to the drawing, the frame of the device comprises a flat portion 1 having downturned side flanges 2 which are extended at one end to form arms 2a. A roller 3 is rotatably mounted between the ends of the flanges 2 and a cradle consisting of a platform 4, having upturned side arms 5 and 6, joined by cross-bars 7 and 8, is mounted to pivot about the cross-bar 7 between the ends of the arms 2a.

The arm 6 of the cradle is extended rearwardly and connected to a short threaded rod 9 which engages in a circular nut 10 having a milled edge for finger operation, the rod 9 being maintained in a vertical position with respect to the arms 2a by means of clips 11 secured to the adjacent arm, one on each side of the nut 10.

Two members 12 are mounted to ride on the bars 7 and 8, a screw 13, which can be screwed down towards the platform 4, being engaged in a screw-threaded aperture in each member 12.

To operate, the screws 13 are loosened and the blade to be sharpened is placed on the platform 4 with its cutting edge protruding beyond the platform. The screws are then tightened down to bear on the upper surface of the blade which is thereby clamped in position. The nut 10 is then rotated until the cradle is in the required position of angular adjustment with respect to the arms 2a, the cradle being pivoted about the bar 7 by the vertical movement imparted to the screw-threaded rod 9 connected to the extension on the side member 6.

To sharpen the blade, the holder is moved backwards and forwards across a stone, for example, with the cutting edge of the blade bearing thereon and the roller bearing on a fixed or control surface which may be the surface on which the stone is supported or the sharpening surface of the stone itself or some other adjacent parallel surface. The amount which the blade protrudes beyond the platform will of course be adjusted according to the height of the control surface on which the roller bears, with respect to the height of the sharpening surface of the stone.

The device may be made in metal or other suitable material and the shape may vary considerably according to requirements. The roller may also be replaced by various other antifriction bearing means

and may be of hard wood or some composite material.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. A device of the type specified for facilitating the sharpening of chisels, plane blades and the like, said device comprising an elongated frame, a cradle mounted for angular adjustment adjacent one end of said frame and adapted to receive and hold the tool or blade to be sharpened and an anti-friction bearing mounted adjacent the opposite end of said frame for contact with a fixed or control surface during the sharpening process, the arrangement being such that the cradle can be adjusted to an angular position in which the tool or blade therein is held at the required angle to the sharpening surface, when the cutting edge of said tool or blade is in contact with the said sharpening surface and the anti-friction bearing is also in contact with said sharpening surface or with an adjacent parallel control surface, and the frame can then be moved to and fro across the sharpening surface to sharpen the tool or blade which latter is maintained at the required sharpening angle.

2. A device as claimed in claim 1 wherein the anti-friction bearing consists of one or more rollers, wheels or the like.

3. A device as claimed in claim 1 or claim 2 wherein the cradle is in the form of a platform having upturned side arms and is mounted for angular adjustment relatively to the frame about an axis passing through the upper ends of said arms, clamping means being associated with the cradle for clamping the tool or blade on the platform.

4. A device as claimed in claim 3 wherein the angular adjustment of the cradle is controlled by a screw-threaded rod, connected to a rearward extension on one of said arms, said rod being mounted for vertical displacement relatively to the frame by means of a milled nut or the like.

5. The device for facilitating the sharpening of chisels, plane blades and the like constructed and arranged substantially as herein described with reference to and as illustrated in the accompanying drawing.

Dated this 27th day of May, 1947.

HASELTINE, LAKE & CO.,
28, Southampton Buildings,
London, W.C.2.,

and
19—25 West 44th Street, New York,
U.S.A.,
Agents for the Applicant.

[This Drawing is a reproduction of the Original on a reduced scale.]

